IN THE CLAIMS

Please amend the claims as indicated by revision marks and claim status as follows:

1. (CURRENTLY AMENDED) An integrated circuit package comprising:

an integrated circuit having sense inputs for a sensed tip signal and a sensed ring signal of a subscriber loop, wherein the integrated circuit generates ~~a~~ an analog control signal for a subscriber loop linefeed driver in response to the sensed signals, wherein the linefeed driver does not reside within a same integrated circuit.

2. (ORIGINAL) The integrated circuit package of claim 1 wherein the sensed tip signal includes first and second sampled tip voltages, wherein a difference between the first and second sampled tip voltages is proportional to the tip current, wherein the sensed ring signal includes first and second sampled ring voltages, wherein a difference between the first and second sampled ring voltages is proportional to the ring current.

3. (ORIGINAL) The integrated circuit package of claim 1 wherein the integrated circuit is a complementary metal oxide semiconductor (CMOS) integrated circuit.

4. (CURRENTLY AMENDED) A subscriber loop linefeed driver comprising:

sense circuitry providing a sensed tip signal and a sensed ring signal to an integrated circuit, wherein the sensed tip and ring signals correspond to a tip current and a ring current of the subscriber loop; and

power circuitry for providing battery feed to a ring node and a tip node of ~~a~~ the subscriber loop in accordance with ~~a~~ an analog control signal generated by the integrated circuit in response to the sensed tip and ring signals, wherein the power circuitry does not reside within the integrated circuit.

5. (ORIGINAL) The subscriber loop linefeed driver of claim 4 wherein the sense circuitry comprises:

a tip resistor series-coupled to the tip node and the power circuitry;

a pair of tip sampling resistors one end of each tip sampling resistor connected to opposite ends of the tip resistor, the other end of each tip sampling resistor forming a tip sense node;

a ring resistor series-coupled to the ring node and the power circuitry;

a pair of ring sampling resistors one end of each ring sampling resistor connected to opposite ends of the ring resistor, the other end of each ring sampling resistor forming a ring sense node.

6. (ORIGINAL) The subscriber loop linefeed driver of claim 4 wherein the sensed tip signal comprises first and second sampled tip voltages, wherein a difference between the first and second sampled tip voltages is proportional to the tip current, wherein the sensed ring signal includes first and second sampled ring voltages, wherein a difference between the first and second sampled ring voltages is proportional to the ring current.

7. (ORIGINAL) The subscriber loop linefeed driver of claim 4 wherein the power circuitry comprises:

a tip control circuit, wherein the tip control circuit increases a tip node voltage in response to a first tip control signal, wherein the tip control circuit decreases a tip node voltage in response to a second tip control signal; and

a ring control circuit wherein the ring control circuit increases a ring node voltage in response to a first ring control signal, wherein the ring control circuit decreases a ring node voltage in response to a second ring control signal.

8. (ORIGINAL) The subscriber loop linefeed driver of claim 7 wherein the tip control circuit comprises:

a first transistor of a first type having an emitter coupled to receive the first tip control signal;

a second transistor of the first type having an emitter coupled to receive the second tip control signal, wherein a base of each of the first and second transistors is coupled to first node;

a third transistor of a second type having a collector coupled to a collector of the first transistor and an emitter coupled to a second node;

a resistor having a first end coupled to the second node, a second end of the resistor coupled to a base of the third transistor and a collector of the second transistor.

9. (ORIGINAL) The subscriber loop linefeed driver of claim 8 wherein the first type is a PNP bipolar junction transistor, wherein the second type is an NPN bipolar junction transistor.

10. (CURRENTLY AMENDED) The subscriber loop linefeed driver of claim 4 further comprising:

voiceband circuitry for bi-directional communication of voiceband data between the ring and tip nodes and ~~a~~ an analog voiceband data interface, wherein the voiceband circuitry provides the analog voiceband data interface with d.c. isolation from the ring and tip nodes.

11. (ORIGINAL) The apparatus of claim 10 wherein the voiceband circuitry further comprises:

a first voiceband data output node;

a load coupled to the first voiceband data output node;

a first voiceband data input node, wherein the load and the first voiceband data input node are capacitively coupled to a selected one of the tip and ring nodes.

12. (PREVIOUSLY PRESENTED) The apparatus of claim 4 further comprising voiceband circuitry for bi-directional communication of voiceband data between the ring and tip nodes and a voiceband data interface, wherein the voiceband circuitry further comprises:

a first voiceband data input node capacitively coupled to a selected one of the ring and tip nodes for receiving voiceband data from the subscriber loop, wherein voiceband data transmitted to the subscriber loop is superimposed on the control signal.

13. (CURRENTLY AMENDED) An apparatus comprising:

an integrated circuit generating analog subscriber loop control signals in response to a sensed tip signal and a sensed ring signal of a subscriber loop, the sensed tip and ring signals received by the integrated circuit; and

a linefeed driver for driving a subscriber loop in accordance with the subscriber loop control signals, the linefeed driver providing the sensed tip and ring signals.

14. (ORIGINAL) The apparatus of claim 13 wherein the integrated circuit is a complementary metal oxide semiconductor (CMOS) integrated circuit.

15. (ORIGINAL) The apparatus of claim 13 wherein the linefeed driver comprises:

power circuitry for providing battery feed to a ring node and a tip node of a subscriber loop in accordance with a linefeed control signal; and

sense circuitry providing a sensed tip signal and a sensed ring signal, wherein the sensed tip and ring signals correspond to a tip current and a ring current of the subscriber loop.

16. (ORIGINAL) The linefeed driver of claim 15 wherein the sense circuitry comprises:

a tip resistor series-coupled to the tip node and the power circuitry;

a pair of tip sampling resistors one end of each tip sampling resistor connected to opposite ends of the tip resistor, the other end of each tip sampling resistor forming a tip sense node;

a ring resistor series-coupled to the ring node and the power circuitry;

a pair of ring sampling resistors one end of each ring sampling resistor connected to opposite ends of the ring resistor, the other end of each ring sampling resistor forming a ring sense node.

17. (ORIGINAL) The linefeed driver of claim 15 wherein the sensed tip signal comprises first and second sampled tip voltages, wherein a difference between the first and second sampled tip voltages is proportional to the tip current, wherein the sensed ring signal includes first and second sampled ring voltages, wherein a difference between the first and second sampled ring voltages is proportional to the ring current.

18. (ORIGINAL) The linefeed driver of claim 15 wherein the power circuitry comprises:

a tip control circuit, wherein the tip control circuit increases a tip node voltage in response to a first tip control signal, wherein the tip control circuit decreases a tip node voltage in response to a second tip control signal; and

a ring control circuit wherein the ring control circuit increases a ring node voltage in response to a first ring control signal, wherein the ring control circuit decreases a ring node voltage in response to a second ring control signal.

19. (ORIGINAL) The linefeed driver of claim 18 wherein the tip control circuit comprises:

a first transistor of a first type having an emitter coupled to receive the first tip control signal;

a second transistor of the first type having an emitter coupled to receive the second tip control signal, wherein a base of each of the first and second transistors is coupled to first node;

a third transistor of a second type having a collector coupled to a collector of the first transistor and an emitter coupled to a second node; and

a resistor having a first end coupled to the second node, a second end of the resistor coupled to a base of the third transistor and a collector of the second transistor.

20. (ORIGINAL) The linefeed driver of claim 19 wherein the first type is a PNP bipolar junction transistor, wherein the second type is an NPN bipolar junction transistor.

21. (ORIGINAL) The linefeed driver of claim 15 further comprising:

voiceband circuitry for bi-directional communication of voiceband data between the ring and tip nodes and a voiceband data interface, wherein the voiceband circuitry provides the analog voiceband data interface with d.c. isolation from the ring and tip nodes.

22. (ORIGINAL) The linefeed driver of claim 21 wherein the voiceband circuitry further comprises:

a first voiceband data output node;

a load coupled to the first voiceband data output node; and

a first voiceband data input node, wherein the load and the first voiceband data input node are capacitively coupled to a selected one of the tip and ring nodes.

23. (ORIGINAL) The apparatus of claim 15 further comprising voiceband circuitry for bi-directional communication of voiceband data between the ring and tip nodes and a voiceband data interface, wherein the voiceband circuitry further comprises:

a first voiceband data input node capacitively coupled to a selected one of the ring and tip nodes for receiving voiceband data from the subscriber loop, wherein voiceband data transmitted to the subscriber loop is superimposed on the linefeed control signals.